APPENDIX A
HISTORY OF REQUIREMENTS FOR REGULATORY IMPACT ANALYSES

Regulatory analyses have been required by executive order since the Nixon Administration. However, agencies' use of the analyses has been constrained by statutes that may be silent about or even prohibit the consideration of costs and benefits. A series of executive orders, associated with different presidents, have shaped the evolution of the process.

EXECUTIVE ORDERS SINCE THE NIXON ADMINISTRATION

President Nixon required "quality of life" reviews of regulations, which provided the Office of Management and Budget (OMB) with a formal mechanism to track rules, although it was used mostly to review rules of the Environmental Protection Agency (EPA).[1] President Ford, in his executive orders on inflation impact analysis (Executive Order 11821) and economic impact analysis (11949), required "inflation impact" statements to review how proposed rules would affect the level of inflation.[2]

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1. General Accounting Office, *Improved Quality, Adequate Resources, and Consistent Oversight Needed If Regulatory Analysis Is to Help Control Costs of Regulations,* GAO/PAD-83-6 (November 2, 1982), p. 45.

2. House Committee on the Judiciary, *Report on Regulatory Review and Sunset Act of 1995* (November 7, 1995), p. 9.

President Carter issued Executive Order 12044 requiring regulatory analysis on all "significant" rules, defined as those having an annual effect on the economy of at least $100 million or expected to result in a major increase in costs or prices for industries, governments, or regions.[3] The order specified consideration of regulatory alternatives and their economic consequences, but it was interpreted to require mostly cost analysis.

Executive Order 12291, which was issued by President Reagan and remained in effect until 1993, required strict cost-benefit analysis for "major" regulations. The order defined major as a rule that resulted in an annual cost to the economy of over $100 million, a major increase in costs or prices, or significant adverse effects on competition, employment, investment, productivity, or innovation. The order coined the term regulatory impact analysis (RIA) and required agencies to prepare one for every major rule. In contrast to President Carter's order, this one stressed choosing the regulatory option that maximized net benefits and minimized net costs.[4]

President Clinton replaced Executive Order 12291 with Executive Order 12866, which again defines rules as significant rather than major. The definition of significant is much broader than before, including any rule that has an expected impact

3. Executive Order 12044, "Improving Government Regulations," *Federal Register* vol. 43 (March 23, 1978), p. 12661.

4. Executive Order 12291, "Federal Regulation," *Federal Register*, vol. 46 (February 19, 1981), p. 13193.

on the economy of $100 million per year; has an "adverse effect" on the economy, productivity, jobs, or the environment; creates inconsistencies with other agency actions; affects the budgetary impact of entitlements, user fees, or loan programs; or raises new legal or policy issues arising from the President's priorities. The order directs agencies to consider the distributional impact of benefits and to select options that maximize net benefits, including health and safety, environmental, and equity benefits.[5]

The RIAs that the Congressional Budget Office (CBO) examined were all issued under Executive Order 12291 or 12866. Because the most recent executive order substantially widens the definition of significant, determining which rules qualify and which do not is difficult. Consequently, isolating the universe of analyses required for those rules can also be difficult.

STATUTES RELATING TO REGULATORY ANALYSIS

Recent legislation has codified many of the procedures covered by Executive Order 12866. Title II of the Unfunded Mandates Reform Act of 1995 provides that agencies

5. Executive Order 12866, "Regulatory Planning and Review," *Federal Register*, vol. 50 (October 4, 1993), p. 51735. For an in-depth treatment of Executive Orders 12291 and 12866, see Congressional Research Service, *Risk Analysis and Cost-Benefit Analysis of Environmental Regulations*, CRS Report for Congress 94-961 ENR (December 2, 1994), pp. 23-35.

assess the effects of their rules on other levels of government and on the private sector. The agencies must provide written statements that contain, among other things, a consideration of a reasonable number of regulatory alternatives. Except in certain circumstances, agencies must also select the "least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule." The act also requires specific analysis and consultation with state, local, and tribal governments when the proposed rule may cause those levels of government to spend a total of more than $100 million in any year. Similar analysis is required for rules affecting the private sector if total expenditures are expected to exceed $100 million per year.

In addition, the Small Business Regulatory Enforcement Fairness Act of 1996 requires agencies to submit to the Congress and the General Accounting Office (GAO) a copy of each proposed rule, accompanied by a cost-benefit analysis and an estimate of regulatory burden. GAO must report to the Congress whether the agency followed procedural requirements associated with rulemaking, including those designed to ensure that the rules do not impose an undue burden on small businesses. The law applies to major and minor rules. Major rules cannot go into effect until 60 days after the proposed rule has been submitted to GAO and the Congress, and the Congress can enact legislation disapproving any rule found to be too burdensome, excessive, inappropriate, or duplicative.

OTHER STATUTES

Although CBO's study did not review the authorizing statutes for every agency that submitted cost data for RIAs, a variety of statutes introduce different considerations into the analytic processes of all agencies. For example, although RIA guidelines generally urge offices to consider benefits and costs, many statutes were aimed at reducing risks rather than costs. At the extreme, some statutes prohibit agencies from considering costs when developing rules. A 1981 Supreme Court decision on the Occupational Safety and Health Administration's (OSHA's) cotton dust standard made it clear that the language in the Occupational Safety and Health Act prohibited the use of cost-benefit tests for new OSHA regulations.[6] Nonetheless, OSHA performs cost-benefit studies under direction from OMB.[7]

Similarly, sections of the Clean Air Act prohibit balancing costs and benefits.[8] Although the Clean Air Act Amendments of 1990 require cost-benefit studies of clean air regulations, no pollution control statute has been amended to shift the basis of decisionmaking from health or technology criteria to cost-benefit criteria.[9]

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6. American Textile Manufacturers Institute v. Donovan, 452 U.S. 490 (1981).

7. Mary Jane Bolle, *Regulatory Reform: Implications for OSHA*, CRS Report for Congress 95-213E (Congressional Research Service, January 27, 1995), p. 4.

8. Robert W. Hahn, "Regulatory Reform: A Legislative Agenda," in Hahn, ed., *Risks, Costs, and Lives Saved: Getting Better Results from Regulation* (New York: Oxford University Press, and AEI Press, 1996).

9. John Blodgett, *Environmental Reauthorizations and Regulatory Reform: Recent Developments*, CRS Report for Congress 95-3 ENR (Congressional Research Service, December 19, 1994), p. 4.

Environmental statutes generally exclude costs from consideration in setting safety goals or health-based standards of ambient environmental quality (such as air standards), although most EPA statutes authorize the agency to consider compliance costs, risk reduction, and technical feasibility when issuing regulations.[10]

10. Ibid., p. 22.

APPENDIX B

HOW THE ENVIRONMENTAL PROTECTION AGENCY CONDUCTS A REGULATORY IMPACT ANALYSIS

A regulatory impact analysis (RIA) at the Environmental Protection Agency (EPA) originates in one of the program offices—primarily, the Office of Solid Waste, the Office of Water, or the Office of Air and Radiation. Each office has a division that is responsible for undertaking regulatory analyses. To illustrate the process, the Office of Solid Waste's Economic Methods and Risk Analysis Division (EMRAD) is used to represent those divisions and the tasks they perform. (The description that follows is based on discussions with staff in EPA offices and at the Office of Management and Budget, as well as a review of the executive order guidelines.)

The staff at EMRAD decide what resources they need to conduct an RIA. If they feel that the task is simple and all the necessary expertise is available within their division, they complete the RIA in-house. Otherwise, they may involve other EPA divisions or even an outside contractor. Contractors are subject to limits about making policy-related assessments, however, so EMRAD takes responsibility for those parts of the analysis. In general, EMRAD and the contractor communicate frequently throughout the initial development of the RIA. Because the process is collaborative and the scope of the work is developed through discussions between EPA and the contractor, clear divisions of labor may not exist. Furthermore, the wide

variation in the complexity of RIAs forces the division doing the regulatory analysis to approach each RIA on an individual basis.

Since RIAs accompany both proposed and final regulatory actions, the review process for any RIA follows the review process for rulemaking. An EPA internal review begins with a work group, which consists, at a minimum, of staff in the lead office and the Office of General Counsel, although other offices may elect to participate as well. EPA's work groups range in size from two to 25 people, depending on the complexity and scope of the subject matter. Much of the internal debate about the proposed analysis is resolved there. Any issues raised by other offices that have not been settled in the work group are presented to each office's management. Any further disagreement is then brought before the Offices of the Deputy Administrator and the Administrator. The office designing the regulation may request a review from outside experts. For example, RIA materials may occasionally be sent to the Economic Subcommittee of EPA's Science Advisory Board. Policies for such external review depend on the individual office. EPA's Office of Policy, Planning, and Evaluation once participated as a regular member of the work groups, but since agency reforms in 1992, its presence has been minimal.

Next, the work group's report, the RIA, and any other studies supporting the proposed regulatory action are presented to the Administrator of EPA. Upon his or

her approval, the materials are delivered in draft form to the Office of Management and Budget (OMB) for its review under Executive Order 12866.

In the course of considering a regulatory action, an agency can provide public notice through the *Federal Register* at several stages in its activities. Those notices may be made to solicit information or to meet requirements of the Administrative Procedures Act for providing a period of public comment on a proposed action before a final rule is promulgated. Specifically, an agency can publish one or more of the following: a notice of inquiry, an advance notice of proposed rulemaking (ANPRM), a notice of proposed rulemaking (NPRM), and finally, a final rule. Under some circumstances, an agency may issue more than one of each type of notice.

OMB has the option to review an agency's notice of inquiry, ANPRM, or other preliminary regulatory action, but the period for it to do so is 10 working days. For proposed rules (NPRMs) and final rules, OMB may waive review if the rule is not "significant" under Executive Order 12866. Otherwise, under the executive order, OMB must notify the agency of the results of its review within 90 calendar days of the date of submission of the draft rule. The executive order stipulates that in the event of disputes between OMB and an agency, the matter is submitted for resolution to the President (or to the Vice President's office at the request of the President). During its review, OMB may also invite other interested federal agencies to comment.

The comments of those agencies must be entertained before the rule is published. In a typical case, OMB asks for an alternative presentation of the information, and the program office originally responsible for the rule will make the necessary changes. When changes to the draft are agreed to, the proposed rule is published in the *Federal Register*.

Typically, a proposed rule is published in the *Federal Register* before it becomes effective. At that point, the public can make comments. (The prominence and importance of publication in the *Federal Register* generally ensure that interested individuals and organizations will read the proposal critically and possibly submit comments.) At the close of the public comment period, the comments are considered, and the originating office prepares the final regulation following procedures similar to those described above for a proposed regulation. Under the Administrative Procedures Act, however, the final rulemaking process is not as open as proposed rulemaking. The final rule must be based on information in the record. Thus, comments from private parties, if not substantiated by agency data or by comments received from the public, are excluded from the docket and are not to be considered. In addition, information about the final rule is more closely guarded in the final stage to limit the lobbying powers of interested parties.

Legislation passed in March 1996 inserts another step before EPA can send the finished rule to the *Federal Register*. The Small Business Regulatory Enforcement Fairness Act requires that the materials be sent to the General Accounting Office and Congressional committees when the final rule is promulgated and published.

APPENDIX C

CBO'S METHOD FOR CALCULATING RESOURCE COSTS

The Congressional Budget Office's (CBO's) estimate of the cost of completing a regulatory impact analysis (RIA) involved several calculations for three agencies—the Environmental Protection Agency, the Federal Aviation Administration, and the National Highway Traffic Safety Administration. Based on data from those agencies, CBO was able to make the following calculations:

- Total personnel levels, measured in full-time equivalents (FTEs) per RIA;
- Nominal and real (inflation-adjusted) FTE costs per RIA;
- Nominal and real contracting costs per RIA;
- Total nominal costs (nominal contracting costs plus nominal FTE costs); and
- Total real costs (real contracting costs plus real FTE costs).[1]

1. The number of FTEs may not always match the number of employees because some people work part time or overtime. FTEs are therefore measured in terms of hours rather than people.

CBO also tabulated the number of years it took to complete the RIA. Information provided by two other agencies—the Coast Guard and the Occupational Safety and Health Administration (OSHA)—did not include enough detail for CBO to perform those calculations, but their cost data were included in the study for comparison.

To obtain cost figures for RIAs, CBO contacted the managers in charge of regulatory analysis at each agency and requested a list of RIAs published since 1990, including annual contract costs and FTEs expended on each analysis. At the National Highway Traffic Safety Administration, OSHA, and the Coast Guard, one office in each agency handled regulatory analysis. In the case of the Environmental Protection Agency, several divisions within the Office of Air and Radiation and the Office of Water conducted RIAs, and two divisions (recently reorganized into one) in the Office of Solid Waste conducted RIAs.

Agencies reported contract costs in nominal dollars (that is, dollars of the year in which the costs were incurred). To convert nominal dollars into real 1995 dollars, CBO indexed the nominal numbers using a chain-type price index of federal nondefense consumption of services, as reported by the Survey of Current Business.[2]

2. Department of Commerce, Bureau of Economic Analysis, "Chain-Type Quantity and Price Indexes for Government Consumption Expenditures and Gross Investments by Type," *Survey of Current Business*, vol. 76, no. 1/2 (January/February 1996) and no. 6 (June 1996), Table 7.11B. The 1996 numbers reflect the first-quarter index, which was the most recent available at the time of CBO's study. Indexes before 1991 are from supplemental tables provided by the Bureau of Economic Analysis.

CBO used 1995 dollars because that was the most recent year with a full year of index information.

Translating FTEs into nominal dollars (and then real dollars) was more complex. The method CBO used to convert the data that agencies reported is described below.

ENVIRONMENTAL PROTECTION AGENCY

All offices at EPA were able to provide estimates of annual contract costs and FTE costs for all RIAs. EPA's budget office provided annual average values for salary and benefits dating back to 1983 for the Office of Air and Radiation, to 1986 for the Office of Solid Waste and Emergency Response, and to 1987 for the Office of Water.[3] EPA estimated that each FTE cost approximately $20,000 per year for overhead.[4] That figure applies only to 1996, however; EPA did not have comparable lump-sum figures for previous years. To estimate the overhead costs per FTE for previous

3. The Office of Solid Waste and Emergency Response contains the Office of Solid Waste (OSW) as one of its several divisions. Data on RIAs came from the Office of Solid Waste, but EPA's budget office provided information on salaries and benefits for the larger entity, so CBO used that information to calculate FTE figures for the OSW.

4. EPA termed overhead as "general support expenses," which included rent, utilities, telecommunications, security, housekeeping, printing, training, supplies, and equipment.

years, CBO calculated the annual percentage change in salary and benefits for each office and applied the same rate of change to the 1996 lump-sum overhead figure for each office. That calculation produced an annual lump-sum number for each office for overhead, which CBO added to annual salary and benefits derive a complete FTE figure. That method assumes that overhead costs changed at the same rate as salary and benefits, which may or may not have been the case.

FEDERAL AVIATION ADMINISTRATION

The FAA issues a "significant" rule only about once a year and therefore performs only about one RIA per year. The agency provided annual FTE levels per RIA and listed the employees working on the analyses as GS-13 (step 5) or GS-14 (step 5) staff. CBO used the annual salaries for those levels stated in the government's General Schedule salary tables and also contacted the FAA budget office for a formula to calculate benefits and overhead. The budget office estimated benefits at 20 percent of salary. The FAA does not calculate overhead per FTE but offered two suggestions for an overhead rate; CBO used 21.5 percent, the average of the two rates.

COAST GUARD

The Coast Guard's Standards, Evaluation, and Analysis Division, which performs RIAs, has seven employees: one manager (a GS-14), two other GS-14s, three GS-13s, and one GS-7. The division also uses contractors extensively. Since the Coast Guard did not provide an estimate of staff effort by level and year, CBO assumed an average cost of $100,000 per year for salary and benefits. As with other agencies, the Coast Guard's estimates of FTE time spent on RIAs are uncertain. In addition, division staff say they often borrow government employees from other offices for temporary assignments. However, that division performs most of the regulatory analysis for the Coast Guard.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

The NHTSA's Office of Regulatory Analysis has averaged about six FTEs from 1990 to 1996, and most of its staff are GS-14 (step 10). The NHTSA provided data for each RIA between 1992 and 1996 by year and FTE level. CBO used a GS-14, step 10 salary level for each year and calculated annual benefits and overhead using a

formula provided by the NHTSA's budget office.[5] The budget office estimated benefits at about 15 percent per year and added a lump sum of roughly $15,000 per FTE per year to account for overhead.[6] CBO added the estimates of benefits and overhead to salary to obtain the complete nominal FTE cost for each year.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

OSHA did not provide data in as much detail as the other agencies. It reported the rules it had published by year from 1990 through 1995 but was unable to determine which economic analyses were RIAs and which were not. OSHA's Office of Regulatory Analysis reported that it spends an average of $420,000 in contract money and about 6.4 FTEs for each economic analysis. According to OSHA's budget office, the cost of salary and benefits for an FTE in the Office of Regulatory Analysis is about $100,000 per year because of the relatively high GS level of its staff (GS-13 and GS-14). Using those numbers, CBO calculated an average cost of $1,060,000 per RIA ($420,000 for contracts plus $640,000 for salaries and benefits). Those figures are not provided in real terms since OSHA could not differentiate costs by year. OSHA

5. The salary numbers used in this paper incorporate locality pay beginning in 1994, the first year it was instituted for federal employees.

6. NHTSA estimated benefits at 15 percent of salary for every year except 1996, for which it used a 16 percent rate. The lump-sum amount varied by year but was approximately $15,000.

did provide examples of a low-cost and a high-cost RIA, and that range is reported in the results.